**15**. The non-transitory computer readable medium as recited in claim **13**, wherein:

the first region of the tissue is a region of higher imaging accuracy in the inner layer of the tissue in the intra-operative imaging data, and

the second region of the tissue is a region of lower imaging accuracy in the inner layer of the tissue in the intra-operative imaging data.

**16**. The non-transitory computer readable medium as recited in claim **13**, wherein:

the outer layer of the tissue includes a cortical layer of a brain of the patient, and

the inner layer of the tissue include a subcortical layer of the brain of the patient.

**17**. A method for performing tumor resection on a brain of a patient, comprising:

registering pre-operative imaging data and intra-operative imaging data;

displaying the registered pre-operative imaging data and intra-operative imaging data;

navigating a confocal laser endomicroscopy (CLE) probe to a region of in-vivo or excised brain tissue including the tumor based on the displaying the registered pre-operative imaging data and intra-operative imaging data;

receiving CLE imaging data from the CLE probe at a border of the tumor;

determining a classification of the region of the in-vivo or excised brain tissue as at least one of healthy tissue and tumorous tissue;

displaying the classification of the in-vivo or excised brain tissue for resection of the tumor; and

repeating the determining the classification of the region of the in-vivo or excised brain tissue and the displaying the classification of the in-vivo or excised brain tissue until the displaying the classification of the in-vivo or excised brain tissue shows healthy tissue with a resected tumor bed.

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